

Introduction - Grade 2 Mathematics

The following released test questions are taken from the Grade 2 Mathematics Standards Test. This test is one of the California Standards Tests administered as part of the Standardized Testing and Reporting (STAR) Program under policies set by the State Board of Education.

All questions on the California Standards Tests are evaluated by committees of content experts, including teachers and administrators, to ensure their appropriateness for measuring the California academic content standards in Grade 2 Mathematics. In addition to content, all items are reviewed and approved to ensure their adherence to the principles of fairness and to ensure no bias exists with respect to characteristics such as gender, ethnicity, and language.

This document contains released test questions from the California Standards Test forms in 2003, 2004, and 2005. First on the pages that follow are lists of the standards assessed on the Grade 2 Mathematics Test. Next are released test questions. Following the questions is a table that gives the correct answer for each question, the content standard that each question is measuring, and the year each question last appeared on the test.

The following table lists each strand/reporting cluster, the number of items that appear on the exam, and the number of released test questions that appear in this document.

STRAND/REPORTING CLUSTER	NUMBER OF QUESTIONS ON EXAM	NUMBER OF RELEASED TEST QUESTIONS
Number Sense – Place Value, Addition, and Subtracti	ion 15	12
Number Sense – Multiplication, Division, and Fraction	ons 23	18
Algebra and Functions	6	6
Measurement and Geometry	14	8
Statistics, Data Analysis, and Probability	7	4
TOTAL	65	48

In selecting test questions for release, three criteria are used: (1) the questions adequately cover a selection of the academic content standards assessed on the Grade 2 Mathematics Test; (2) the questions demonstrate a range of difficulty; and (3) the questions present a variety of ways standards can be assessed. These released test questions do not reflect all of the ways the standards may be assessed. Released test questions will not appear on future tests.

In Grade 2, the actual Mathematics question does not appear in the test booklet but is read to the students by the teacher administering the test. In this booklet, the questions are printed in bold-faced capital letters.

For more information about the California Standards Tests, visit the California Department of Education's Web site at http://www.cde.ca.gov/ta/tg/sr/resources.asp.

THE NUMBER SENSE STRAND

In Grade 2, there are two reporting clusters within the Number Sense strand: 1) Place Value, Addition, and Subtraction and 2) Multiplication, Division, and Fractions. This booklet contains released test questions for each of these clusters.

The following five California content standards are included in the Place Value, Addition, and Subtraction reporting cluster of the Number Sense strand and are represented in this booklet by 12 test questions. These questions represent only some ways in which these standards may be assessed on the Grade 2 California Mathematics Standards Test.

CALIFORNIA CONTENT STANDARDS IN THIS REPORTING CLUSTER

Number Sense		
Standard Set 1.0 Students understand the relationship between numbers, quantities, a place value in whole numbers up to 1,000:		
2NS1.1*	Count, read, and write whole numbers to 1,000 and identify the place value for each digit.	
2NS1.2	Use words, models, and expanded forms (e.g., $45 = 4 \text{ tens} + 5$) to represent numbers (to 1,000).	
2NS1.3*	Order and compare whole numbers to 1,000 by using the symbols <, =, >.	
Standard Set 2.0	Students estimate, calculate, and solve problems involving addition and subtraction of two- and three-digit numbers:	
2NS2.1*	Understand and use the inverse relationship between addition and subtraction (e.g., an opposite number sentence for $8+6=14$ is $14-6=8$) to solve problems and check solutions.	
2NS2.2*	Find the sum or difference of two whole numbers up to three digits long.	

^{*} Denotes key standards (Mathematics Framework for California Public Schools)



The following nine California content standards are included in the Multiplication, Division, and Fractions reporting cluster of the Number Sense strand and are represented in this booklet by 18 test questions. These questions represent only some ways in which these standards may be assessed on the Grade 2 California Mathematics Standards Test.

CALIFORNIA CONTENT STANDARDS IN THIS REPORTING CLUSTER

Number Sense	
Standard Set 3.0*	Students model and solve simple problems involving multiplication and division:
2NS3.1*	Use repeated addition, arrays, and counting by multiples to do multiplication.
2NS3.2*	Use repeated subtraction, equal sharing, and forming equal groups with remainders to do division.
2NS3.3*	Know the multiplication tables of 2s, 5s, and 10s (to "times 10") and commit them to memory.
Standard Set 4.0	Students understand that fractions and decimals may refer to parts of a set and parts of a whole:
2NS4.1*	Recognize, name, and compare unit fractions from 1/12 to 1/2.
2NS4.2*	Recognize fractions of a whole and parts of a group (e.g., one-fourth of a pie, two-thirds of 15 balls).
2NS4.3*	Know that when all fractional parts are included, such as four-fourths, the result is equal to the whole and to one.
Standard Set 5.0	Students model and solve problems by representing, adding, and subtracting amounts of money:
2NS5.1*	Solve problems using combinations of coins and bills.
2NS5.2*	Know and use the decimal notation and the dollar and cent symbols for money.
Standard Set 6.0	Students use estimation strategies in computation and problem solving that involve numbers that use the ones, tens, hundreds, and thousands places:
2NS6.1	Recognize when an estimate is reasonable in measurements (e.g., closest inch).

^{*} Denotes key standards (Mathematics Framework for California Public Schools)



THE ALGEBRA AND FUNCTIONS STRAND/REPORTING CLUSTER

The following three California content standards are included in the Algebra and Functions strand/reporting cluster and are represented in this booklet by six test questions. These questions represent only some ways in which these standards may be assessed on the Grade 2 California Mathematics Standards Test.

CALIFORNIA CONTENT STANDARDS IN THIS STRAND/CLUSTER

Algebra and Functions		
Standard Set 1.0 Students model, represent, and interpret number relationships to countries and solve problems involving addition and subtraction:		
2AF1.1*	Use the commutative and associative rules to simplify mental calculations and to check results.	
2AF1.2 Relate problem situations to number sentences involving addition and subtraction.		
2AF1.3	Solve addition and subtraction problems by using data from simple charts, picture graphs, and number sentences.	

^{*} Denotes key standards (Mathematics Framework for California Public Schools)



THE MEASUREMENT AND GEOMETRY STRAND/REPORTING CLUSTER

The following seven California content standards are included in the Measurement and Geometry strand/ reporting cluster and are represented in this booklet by eight test questions. These questions represent only some ways in which these standards may be assessed on the Grade 2 California Mathematics Standards Test.

CALIFORNIA CONTENT STANDARDS IN THIS STRAND/CLUSTER

Measurement and Geometry		
Standard Set 1.0 Students understand that measurement is accomplished by it unit of measure, iterating (repeating) that unit, and comparing to be measured:		
2MG1.1	Measure the length of objects by iterating (repeating) a nonstandard or standard unit.	
2MG1.2	Use different units to measure the same object and predict whether the measure will be greater or smaller when a different unit is used.	
2MG1.3*	Measure the length of an object to the nearest inch and/or centimeter.	
2MG1.4	Tell time to the nearest quarter hour and know relationships of time (e.g., minutes in an hour, days in a month, weeks in a year).	
2MG1.5	Determine the duration of intervals of time in hours (e.g., 11:00 a.m. to 4:00 p.m.).	
Standard Set 2.0*	Students identify and describe the attributes of common figures in the plane and of common objects in space:	
2MG2.1*	Describe and classify plane and solid geometric shapes (e.g., circle, triangle, square, rectangle, sphere, pyramid, cube, rectangular prism) according to the number and shape of faces, edges, and vertices.	
2MG2.2*	Put shapes together and take them apart to form other shapes (e.g., two congruent right triangles can be arranged to form a rectangle).	

^{*} Denotes key standards (Mathematics Framework for California Public Schools)



THE STATISTICS, DATA ANALYSIS, AND PROBABILITY STRAND/REPORTING CLUSTER

The following four California content standards are included in the Statistics, Data Analysis, and Probability strand/reporting cluster and are represented in this booklet by four test questions. These questions represent only some ways in which these standards may be assessed on the Grade 2 California Mathematics Standards Test.

CALIFORNIA CONTENT STANDARDS IN THIS STRAND/CLUSTER

Statistics, Data Analysis, and Probability		
Standard Set 1.0* Students collect numerical data and record, organize, display, and interpret t data on bar graphs and other representations:		
2PS1.1	Record numerical data in systematic ways, keeping track of what has been counted.	
PS1.2 Represent the same data set in more than one way (e.g., bar graphs and charts with tallies).		
2PS1.3	.3 Identify features of data sets (range and mode).	
2PS1.4 Ask and answer simple questions related to data representations.		

^{*} Denotes key standards (Mathematics Framework for California Public Schools)

Math



The questions in brackets are not printed in the test booklet. The test administrator reads these questions aloud to students.

1 [A NUMBER HAS NINE ONES, SIX TENS, AND EIGHT HUNDREDS. WHAT IS THE NUMBER?]

869

896

968

986

Α

Е

C

D

2 [WHAT IS THE VALUE OF THE FIVE IN FIVE HUNDRED TWENTY-SIX?]

526

5

50

500

5000

A

В

C

3 [WHAT IS ANOTHER NAME FOR FOUR HUNDRED PLUS FORTY PLUS EIGHT?]

4408

448

400408

4048

Α

В

C



Released Test Questions

4 [WHAT IS ANOTHER WAY TO WRITE NINE HUNDRED EIGHTY-SEVEN?]

$$900 + 87 + 7$$

$$980 + 70 + 0$$

C

$$700 + 80 + 9$$

B

$$900 + 80 + 7$$

D

5 [WHICH NUMBER SENTENCE IS TRUE?]

359 < 375

359 > 375

359 < 359

359 > 359

A

B

C

D

6 [WHICH NUMBER GOES IN THE BOX?]

386<□<521

297

334

410

528

Δ

B

C



[WHICH SIGN MAKES THE NUMBER SENTENCE TRUE?]

+

<

В

8 [SOPHIE DID THIS SUBTRACTION PROBLEM. WHICH ADDITION PROBLEM SHOWS THAT SHE GOT THE RIGHT ANSWER?]

41

44 +85 41

B

D

9 [WHICH OF THESE CAN BE USED TO CHECK THE ANSWER TO THE PROBLEM IN THE BOX?]

A 7 + 3 = 10

C 2+5=7

B 7-4=3

D 10 - 3 = 7



Released Test Questions

10 [WHAT IS THE SOLUTION TO THIS PROBLEM?]

431

421

417

407

A

B

C

D

11

50

140

144

150

A

B

C

D

[TONI HAD SEVEN HUNDRED FIFTY-NINE CUCUMBERS. SHE SOLD FIVE HUNDRED SIXTY-THREE OF THEM. HOW MANY CUCUMBERS DOES TONI HAVE LEFT?]

759

563

196

216

296

A

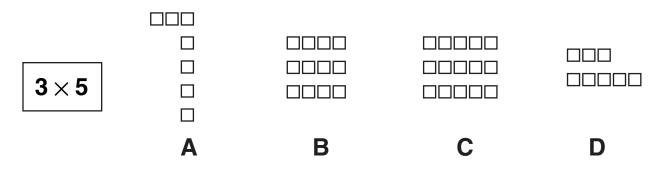
B

C

Math



13 [WHICH DRAWING SHOWS THREE TIMES FIVE?]



[DAVID READS TWO PAGES EVERY FIVE MINUTES. HOW MANY PAGES WILL DAVID HAVE READ AFTER TWENTY-FIVE MINUTES?]

David's Reading

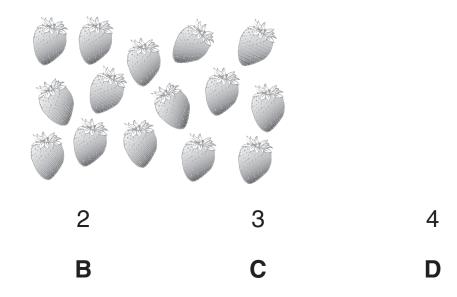
Minutes	5	10	15	20	25
Pages	2	4	6	8	

9 pages	10 pages	11 pages	12 pages
Δ	В	C	D

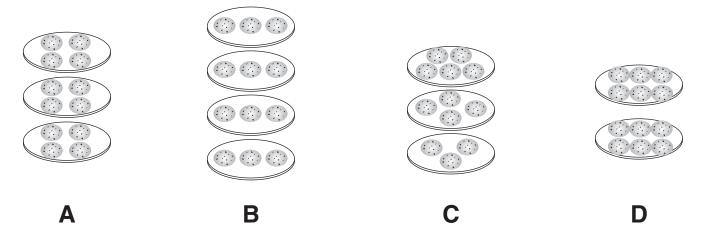


Released Test Questions

[KAYLA HAS THESE STRAWBERRIES. SHE WILL GIVE FOUR STRAWBERRIES TO EACH OF HER THREE FRIENDS. HOW MANY STRAWBERRIES WILL BE LEFT FOR KAYLA?]



[WHICH PICTURE SHOWS HOW THREE CHILDREN SHOULD SHARE TWELVE COOKIES EQUALLY?]



Math



[THERE ARE NINE BENCHES IN A PARK. THERE ARE TWO PEOPLE SITTING ON EACH BENCH. HOW MANY PEOPLE ARE SITTING ON THE NINE BENCHES ALL TOGETHER?]

18

[THERE WERE TEN FROGS IN A POND. EACH FROG HAD FOUR LEGS. HOW MANY FROG **LEGS WERE THERE ALL TOGETHER?**]

40

50

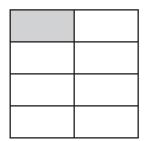
104

B



Released Test Questions

19 [WHAT FRACTIONAL PART OF THIS FIGURE IS SHADED?]



<u>1</u> 8

 $\frac{1}{7}$

 $\frac{1}{4}$

 $\frac{1}{2}$

A

В

C

D

20 [WHICH OF THE FOLLOWING FRACTIONS IS THE GREATEST?]

 $\frac{1}{9}$

 $\frac{1}{2}$

 $\frac{1}{5}$

10

A

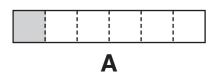
B

C

Math

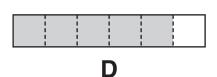


21 [LOOK AT THE FRACTION BARS. WHICH FRACTION BAR SHOWS ONE-SIXTH SHADED?]









22 [WHAT FRACTION OF THIS SHAPE IS SHADED?]



1
2

$$\frac{2}{3}$$

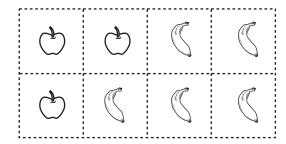
$$\frac{3}{2}$$

$$\frac{3}{1}$$



Released Test Questions

23 [WHAT FRACTION OF THE GROUP OF STICKERS IS APPLE STICKERS?]



3 5 **A** 5 3

 $\frac{3}{8}$

 $\frac{8}{3}$

- 24 [WHICH FRACTION IS EQUAL TO ONE WHOLE?]
 - $\frac{1}{3}$

 $\frac{1}{8}$

 $\frac{2}{3}$

 $\frac{8}{8}$

A

В

C

- D
- [A TEACHER DIVIDES A WHOLE CLASS INTO GROUPS TO WORK ON A CLASS PROJECT. EACH GROUP HAS ONE-SIXTH OF ALL THE CHILDREN IN THE CLASS. HOW MANY GROUPS ARE THERE?]
 - 2

6

7

12

A

B

C

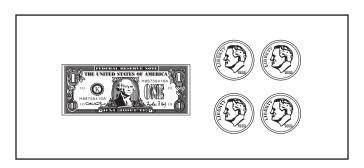


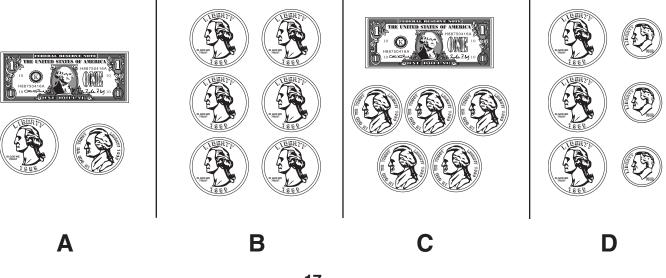
[MONIQUE HAS FOUR QUARTERS, TWO DIMES, AND ONE NICKEL. HOW MUCH MONEY DOES SHE HAVE?]



\$1.25 \$1.05 **A C**\$0.75 \$1.45 **B D**

[JENA HAS THE MONEY YOU SEE IN THE BOX. WHICH IS A GREATER AMOUNT OF MONEY THAN JENA'S?]





— 17 —



Released Test Questions

28 [LEE HAS THE MONEY YOU SEE IN THE BOX. HOW MUCH MONEY IS THIS?]



\$2.15 \$2.25 **A C** \$2.20 \$2.30 **B D**

29 [WHAT IS ANOTHER WAY TO WRITE FORTY-FIVE CENTS?]

45¢

\$0.45 \$4.05

\$4.50

\$45

A

B

C

D

30 [ABOUT HOW LONG IS A DOLLAR BILL?]

1 foot

1 inch

6 feet

6 inches

A

B

C

Math



[WHAT NUMBER GOES IN THE BOX TO MAKE THIS NUMBER SENTENCE TRUE?]

15

23

В

D

[LOOK AT THE NUMBER SENTENCE IN THE BOX. WHICH OF THE FOLLOWING HAS THE SAME VALUE AS SIX PLUS FIVE?]

$$6 + 5 = 11$$

A $6-5=\Box$

- $\mathsf{C} \qquad 5 \times 6 = \square$

- **B** $5+6=\Box$

- $5 6 = \Box$

[LOOK AT THE ADDITION PROBLEM IN THE BOX. WHICH OTHER PROBLEM HAS THE SAME ANSWER?]

$$4 + 2 + 6 = 12$$

$$6+4+3=\Box$$
 $4+12+6=\Box$

$$12+6+2=\Box$$
 $2+4+6=\Box$

B

[ANDREW HAD FIFTEEN PENNIES. HE FOUND SOME MORE. NOW HE HAS THIRTY-THREE. WHICH NUMBER SENTENCE COULD BE USED TO FIND HOW MANY PENNIES HE FOUND?]

 \Box - 33 = 15

A

C

$$15 + 33 = \square$$

 \Box - 15 = 33

Е

D

[MR. LEE'S CLASS COLLECTED FIVE HUNDRED THREE CANS FOR RECYCLING. MS. WEBB'S CLASS COLLECTED FOUR HUNDRED FIFTY CANS. WHICH NUMBER SENTENCE CAN BE USED TO FIND HOW MANY MORE CANS MR. LEE'S CLASS COLLECTED THAN MS. WEBB'S?]

503

450

$$405 + 530 = 450 - 503 =$$

Α

C

$$503 + 450 = 503 - 450 =$$

B



[LOOK AT THE GRAPH. HOW MANY FISH DID HENRY AND KRISTEN CATCH ALL TOGETHER?]

Fish Caught Each = 1 fish		
Henry		
Kristen	the the the the	
Marisa	Vago Vago	

4 6 10 12

A B C D

[THIS COMB IS ABOUT 12 BUTTONS LONG. ABOUT HOW MANY TOOTHPICKS LONG IS THE COMB?]



4 8 10 12

A B C D



Released Test Questions

[LOOK AT THE PICTURE OF THE LEAF. MEASURE THE LENGTH OF THE LEAF AND STEM IN INCHES. ABOUT HOW LONG ARE THE LEAF AND STEM TOGETHER?]



4 inches 5 inches 6 inches 7 inches

A B C D

[SEAN IS GOING ON VACATION TO VISIT HIS GRANDPARENTS. HE WILL BE GONE ONE MONTH. ABOUT HOW MANY DAYS WILL SEAN BE GONE?]

7 days 30 days 52 days 365 days **A B C D**

40 [NATALIE WALKED FOR ONE HOUR. HOW MANY MINUTES DID NATALIE WALK?]

12 24 52 60 **B C D**

Math



[A MOVIE STARTED AT ELEVEN O'CLOCK A.M. AND LASTED THREE HOURS. AT WHAT TIME **DID THE MOVIE END?]**

12:00 p.m.

1:00 p.m.

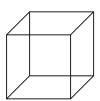
2:00 p.m.

3:00 p.m.

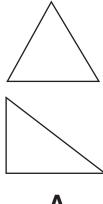
B

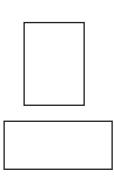
D

[HOW MANY FACES DOES A CUBE HAVE?]

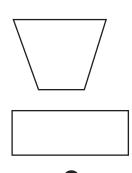


[LOOK AT THE PAIRS OF SHAPES. WHICH IS A PAIR OF RECTANGLES?]

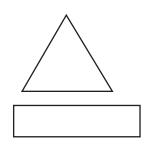




B



C

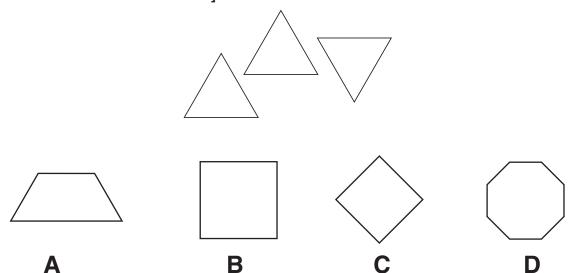




Released Test Questions

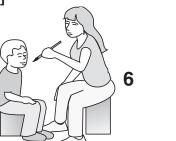
44

[LOOK AT THE THREE TRIANGLES. WHICH OF THE FOLLOWING SHAPES CAN BE MADE FROM THE THREE TRIANGLES?]





[THE STUDENTS IN MRS. KIM'S CLASS ARE VOTING FOR THE BOOTH THEY WANT TO HAVE AT THE FUN FAIR. SIX STUDENTS WANT FACE PAINTING. FIVE STUDENTS WANT A RELAY RACE. TWELVE STUDENTS WANT THE RING TOSS. WHICH TALLY CHART SHOWS THESE **RESULTS?**]







Fun Fair	
Face Painting	#1
Relay Race	###1
Ring Toss	##

Fun Fair	
Face Painting	##
Relay Race	###1
Ring Toss	#1

Fun Fair

Face Painting Relay Race Ring Toss

Fun Fair **Face Painting Relay Race Ring Toss**

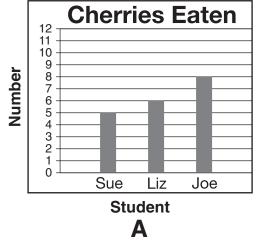
B

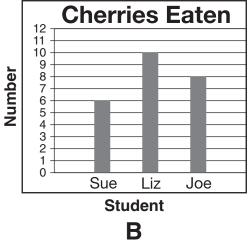


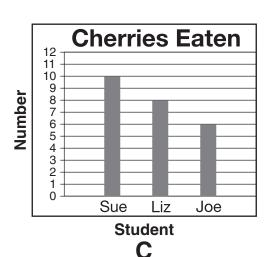
46

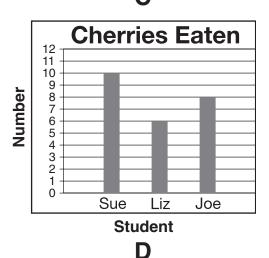
[LOOK AT THE TALLY CHART AT THE TOP OF THE PAGE. THE TALLY CHART SHOWS THE NUMBER OF CHERRIES EACH STUDENT ATE. WHICH GRAPH MATCHES THE TALLY MARKS IN THE CHART?]

Cherries Eaten	
Sue	####
Liz	##1
Joe	HH 111











47

[WHAT IS THE DIFFERENCE BETWEEN THE LARGEST HEIGHT AND THE SMALLEST HEIGHT?]

Student Heights		
Student	Height (in inches)	
Sara	44	
James	42	
Su Lin	49	
Randy	46	
Cara	50	

8 inches 12 inches 42 inches 50 inches

A B C D

48

[CARRIE PRACTICES THE PIANO EACH DAY. THE TABLE SHOWS HOW LONG SHE PRACTICED EACH DAY LAST WEEK. HOW MANY MINUTES LONGER DID SHE PRACTICE ON WEDNESDAY THAN ON TUESDAY? MARK YOUR ANSWER.]

Piano Practice Times

Day	Minutes
Monday	26
Tuesday	24
Wednesday	30
Thursday	35
Friday	15

6	5	4	2	
Α	В	С	D	

Math



Question Number	Correct Answer	Standard	Year of Test
1	A	2NS1.1	2004
2	C	2NS1.1	2005
3	В	2NS1.2	2004
4	D	2NS1.2	2005
5	A	2NS1.3	2003
6	C	2NS1.3	2004
7	A	2NS1.3	2005
8	С	2NS2.1	2003
9	В	2NS2.1	2004
10	D	2NS2.2	2003
11	D	2NS2.2	2004
12	В	2NS2.2	2005
13	С	2NS3.1	2004
14	В	2NS3.1	2005
15	С	2NS3.2	2003
16	A	2NS3.2	2005
17	D	2NS3.3	2003
18	В	2NS3.3	2004
19	A	2NS4.1	2003
20	В	2NS4.1	2004
21	A	2NS4.1	2005
22	В	2NS4.2	2003
23	С	2NS4.2	2005
24	D	2NS4.3	2003
25	В	2NS4.3	2005
26	A	2NS5.1	2003
27	В	2NS5.1	2004
28	D	2NS5.2	2003
29	A	2NS5.2	2005
30	D	2NS6.1	2004



Released Test Questions

Question Number	Correct Answer	Standard	Year of Test
31	В	2AF1.1	2003
32	В	2AF1.1	2004
33	D	2AF1.1	2005
34	A	2AF1.2	2003
35	D	2AF1.2	2005
36	С	2AF1.3	2004
37	A	2MG1.2	2004
38	В	2MG1.3	2004
39	В	2MG1.4	2003
40	D	2MG1.4	2005
41	С	2MG1.5	2005
42	С	2MG2.1	2003
43	В	2MG2.1	2003
44	A	2MG2.2	2004
45	D	2PS1.1	2005
46	D	2PS1.2	2003
47	A	2PS1.3	2005
48	A	2PS1.4	2004